

Notice of Allowability	Application No.	Applicant(s)	
	09/749,763	EGAWA ET AL.	
	Examiner	Art Unit	
	Nelson D. Hernandez	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ The drawings filed on 28 December 2000 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In **claim 1**, line 12, the word "resistor" has been changed to "register".

In **claim 4**, line 17, the word "resistor" has been changed to "register".

Allowable Subject Matter

1. Claims **1-10** are allowed.
2. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims **1** and **4**, the main reasons for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest setting a voltage of the readout driving signals corresponding to said readout pulse for a dynamic range increase to a lower voltage than a voltage of a readout driving signal corresponding to a usual readout pulse and a pulse production circuit including a vertical shift resistor configured to sequentially generate pulses for a dynamic range control based on an external input pulse for said dynamic range control.

Egawa (JP 2000-224492 A) discloses a solid state imaging device (Figs. 2 and 4) comprising: an imaging region (Fig. 2: 14) including unit cells arranged in a matrix of

Art Unit: 2612

rows and columns to provide a plurality of pixel rows, each of said unit cells having photoelectric conversion means (Fig. 4: PD) for photoelectrically converting incident light, applied to pixels, to store signal charges, readout means (Figs. 4: 4 and 4: Td) for reading out stored signal charges to a detection node, and amplifying means (Fig. 4: Tb) for amplifying the readout signal, also teaches an internal control (Fig. 4: 10a) for generating various kinds of timing signals for controlling the registers (Fig. 4: 2) (Translation, page 6, lines 3-20; page 7, lines 6-15; page 9, lines 1-3 and 23-42; page 10, lines 24-40; page 12, line 12 – page 13, line 24; page 17, line 34 – page 18, line 19). Egawa does not explicitly disclose a readout voltage switching circuit for setting a readout driving signal, applied to the readout means, to one of a plurality of voltages different to one another according to internal control.

However, Egawa fails to teach or reasonably suggest setting a voltage of said readout driving signals corresponding to said readout pulse for a dynamic range increase to a lower voltage than a voltage of a readout driving signal corresponding to a usual readout pulse and a pulse production circuit including a vertical shift resistor configured to sequentially generate pulses for a dynamic range control based on an external input pulse for said dynamic range control.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:30 A.M. to 6:00 P.M..

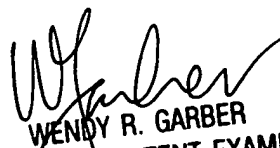
Art Unit: 2612

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy R. Garber can be reached on (571) 272-7308. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nelson D. Hernandez
Examiner
Art Unit 2612

NDHH
March 5, 2005


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600